litigation in *CBS v. PrimeTime 24*. These markets were chosen to represent a variety of terrain conditions, from flat (Miami) to highly irregular (Pittsburgh). The stations were chosen to represent the characteristics of the different frequency bands (2 low VHF, 3 high VHF, 1 UHF) and were predominantly VHF stations as most network affiliates are VHF stations. Tests at the approximately 400 remaining sites were conducted in the Charlotte area in conjunction with the Commission's DTV proceedings and were based on test channels.

Second, in the case of the *CBS v. PrimeTime 24* data, the sites themselves were chosen randomly. In the case of the Charlotte test data, the sites were chosen on a grid basis.

Third, all measurements were conducted in accordance with the Commission's mobile run methodology. All measurements were taken before the Commission had amended its rule in Section 73.686 to provide a methodology for individual site testing.

Finally, it is important to note that all of this data is measurement data of *television* signal intensity. This is in marked contradistinction with Rubinstein's data which was collected for land mobile applications. It is also in contradistinction with much of the data that Longley summarized and analyzed in her 1978 paper on radio propagation in urban areas which also principally considered land mobile data.[56]

In their reply comments in this proceeding, MSTV and NAB have compared several possible modifications to the ILLR model against these thousand-plus actual field measurements.[57] MSTV

---

[56] *See* A.G. Longley, *Radio Propagation in Urban Areas*, CONF. REC. 28TH IEEE VEHICULAR TECH. CONF. 503 (Denver, Colo., Mar. 22-24, 1978).

[57] *See* Joint Reply Comments of MSTV and NAB, ET Docket No. 00-11 (filed Mar. 14, 2000).

and NAB considered (1) the *Notice*'s proposal to utilize the adapted Rubinstein clutter loss values, but only where there is full Fresnel zone clearance ("FCC-Rubinstein proposal")[58]; (2) DirecTV's and EchoStar's proposal to utilize the adapted Rubinstein clutter loss values regardless of Fresnel zone clearance ("Satellite Carrier proposal")[59]; and (3) Biby's proposal to utilize Longley's "urban factor," but without adjustment for either receiving or transmitting antenna height differences ("Biby proposal").[60] MSTV and NAB found that none of these proposals materially improved upon the existing ILLR model's accuracy. MSTV and NAB shared the underlying data with Network Affiliates, and Network Affiliates confirmed the results found by MSTV and NAB. These results are summarized in the accompanying Table 1.

Over all one thousand-plus data sets, the ILLR model correctly predicted whether a site could receive a signal of Grade B intensity from at least one affiliate of the relevant network 89.4% of the time. The ILLR model underpredicted service 4.5% of the time and overpredicted service 6.3% of the time.[61] When the ILLR model's prediction was incorrect, it was therefore approximately evenly split between underpredicting and overpredicting service. The ILLR model, therefore, sets a very high standard for accuracy and reliability.

---

[58] *See Notice* at ¶ 11.

[59] *See* Comments of DirecTV at 4-6; Comments of EchoStar at 4-5.

[60] *See* Comments of Biby at 11.

[61] Percentages may not total precisely 100% due to rounding.

Table 1

Comparison of Various Proposed Models' Predictive Accuracy

		ILLR		*FCC-Rubinstein*		*Satellite Carrier*		*Biby*	
WBTV, Charlotte									
Channel 3	*Correct*	89	88.1%	89	88.1%	79	78.2%	87	86.1%
	Under	11	10.9%	11	10.9%	21	20.8%	13	12.9%
	Over	1	1.0%	1	1.0%	1	1.0%	1	1.0%
WFOR, Miami									
Channel 4	*Correct*	100	100.0%	100	100.0%	100	100.0%	100	100.0%
	Under	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	Over	0	0.0%	0	0.0%	0	0.0%	0	0.0%
WSVN, Miami									
Channel 7	*Correct*	100	100.0%	100	100.0%	100	100.0%	100	100.0%
	Under	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	Over	0	0.0%	0	0.0%	0	0.0%	0	0.0%
WTVD, Durham									
Channel 11	*Correct*	96	96.0%	96	96.0%	77	77.0%	80	80.0%
	Under	4	4.0%	4	4.0%	23	23.0%	20	20.0%
	Over	0	0.0%	0	0.0%	0	0.0%	0	0.0%
WJZ, Baltimore									
Channel 13	*Correct*	97	92.4%	97	92.4%	88	83.8%	80	76.2%
	Under	5	4.8%	5	4.8%	16	15.2%	23	21.9%
	Over	4	3.8%	4	3.8%	2	1.9%	3	2.9%
WPGH, Pittsburgh									
Channel 53	*Correct*	82	78.8%	83	79.8%	77	74.0%	78	75.0%
	Under	4	3.8%	5	4.8%	21	20.2%	20	19.2%
	Over	18	17.3%	16	15.4%	6	5.8%	6	5.8%
Test Station, Charlotte									
Channel 6	*Correct*	176	88.4%	176	88.4%	160	80.4%	166	83.4%
	Under	14	7.0%	14	7.0%	30	15.1%	24	12.1%
	Over	9	4.5%	9	4.5%	9	4.5%	9	4.5%
Test Station, Charlotte									
Channel 53	*Correct*	161	80.9%	161	80.9%	157	78.9%	158	79.4%
	Under	7	3.5%	8	4.0%	30	15.1%	25	12.6%
	Over	31	15.6%	30	15.1%	12	6.0%	16	8.0%
Total Accuracy									
	Correct		89.4%		89.5%		83.1%		84.2%
	Under		4.5%		4.7%		14.0%		12.4%
	Over		6.3%		6.0%		3.0%		3.5%

By contrast, the Satellite Carrier proposal and Biby proposal both were notably less accurate, that is they both resulted in significant decreases in correct predictions and/or significantly increased the number of underpredictions. The Satellite Carrier proposal turned in the worst results, correctly predicting service 83.1% of the time. Therefore, in more than 6% of the cases, it was incorrect when the ILLR model was correct. All of its increased incorrect predictions were underpredictions, and the Satellite Carrier proposal, when incorrect, was nearly 5 times more likely to result in underprediction (14.0%) than overprediction (3.0%). The Biby proposal also returned results worse than the ILLR model, correctly predicting service 84.2% of the time. It was incorrect when the ILLR model was correct in more than 5% of the cases. Again, all of its increased incorrect predictions were underpredictions; underpredictions (12.4%) were 3 ½ times more likely to occur than overpredictions (3.5%). The central factor underlying these poorer results, although by no means the only such factor, is the failure, in both cases, in utilizing either Rubinstein's clutter loss values or Longley's "urban factor" correction without suitably correcting for differences in transmitting and receiving antenna heights. These results demonstrate that antenna heights play a critical role both in whether a predictive model accurately predicts Grade B service and in whether an individual household can receive a signal of Grade B intensity.

Although, in absolute terms, the FCC-Rubinstein proposal very marginally appears to be more accurate than the ILLR model (89.5% v. 89.4%), that result, while being statistically insignificant, is a chimera. Actually, the FCC-Rubinstein proposal itself had a negligible impact on the results. This is because, due to its restriction on applying clutter loss values only in cases in which full Fresnel zone clearance existed, it was hardly ever applied. The fact that in 1 case out of 1009 measurements an additional correct prediction resulted is entirely due to chance. Were the

Rubinstein clutter loss values applied in more circumstances—and the satellite carriers would apply them in every case—the result would be noticeably less accurate than the ILLR model. Indeed, this is the exact result of the Satellite Carrier proposal, which returned the worst results. In truth, the FCC-Rubinstein proposal is scientifically inaccurate for all of the reasons discussed above in part I. There is certainly no scientific basis upon which to adopt the FCC-Rubinstein proposal based on this result.

In short, MSTV and NAB found, and Network Affiliates confirmed, that the accuracy of the ILLR model was not materially improved by any proposal before the Commission in this proceeding.

B. Extensive Regression Analyses Of Longley's "Urban Factor" Applied To Additional Data Did Not Result In Improvements To The Existing ILLR Model

In order to determine whether the ILLR model may be improved by taking into account MSTV and NAB's thousand-plus measurements and ILLR predictions, MSTV and NAB provided their data to Network Affiliates for analysis. Network Affiliates, with the assistance of IIT Research Institute, conducted extensive analyses of this data. The general goal was to determine whether Longley's "urban factor" could serve as a basis for modification once the approximately one thousand additional data sets obtained for television broadcasting (vis-à-vis land mobile applications) were included in the formulation.

As an initial matter, and for control purposes, the Longley "urban factor," adjusted for differences in both receiving and transmitting antenna heights, based on Hata's equations as shown

in Network Affiliates' opening comments,[62] was applied to the path loss predicted by the ILLR model. This case is referred to as the "Untweaked" UFC (Urban Factor Corrected) method. The predictions resulting from the "Untweaked" UFC method were then compared with the actual measured signal intensities.[63]

Network Affiliates and IIT Research Institute then examined several possible scenarios for "tweaking" the Longley "urban factor" correction.[64] The basic methodology is described in the IITRI Further Engineering Statement.[65] The scenarios may be briefly further characterized as follows:

The first scenario attempted to determine whether the Longley "urban factor," suitably adjusted for receiving and transmitting antenna height differences, i.e., UFC, benefits from being "tweaked" with nearly a thousand additional data sets obtained for television broadcasting

---

[62] *See* Joint Comments of Network Affiliates at 27-28 (showing how to adjust the Longley "urban factor" to account for differences in receiving and transmitting antenna heights).

[63] The "Untweaked" UFC was not applied whenever it would result in adding a gain to the predicted path loss.

[64] As an initial matter, in the data sets provided by MSTV and NAB, there were a number of sets in which the measured signal intensity was extremely low and accordingly set to 0 dBu for default. Because these sets did not contain the actual, albeit low, measured signal intensity value, these data sets were removed from further consideration, leaving 953 data sets. The use of a default has no effect on MSTV and NAB's analysis of the various proposals' accuracy, as that task was different than the attempt to further modify Longley's "urban factor" and thus the ILLR model itself.

In addition, in the scenarios that are described below and in the IITRI Further Engineering Statement, (1) the complete data set was examined as described and (2) certain additional individual data sets that appear to be outliers were removed from consideration, i.e., those data sets where the difference between the measured signal intensity and the predicted signal intensity was greater than one standard deviation for the set as a whole in that particular scenario.

Not every possible scenario described was taken to conclusion when it became apparent that the scenario would not yield fruitful results.

[65] *See* IITRI Further Engineering Statement at 17-19.

(hereinafter, "Tweaked" UFC). One part of this scenario examined this tweaking with regard to distance only and without regard to frequency or transmitting antenna height differences. The results, however, were not promising, and this aspect was not studied further. Another part of this scenario examined the tweaking by assuming that frequency is a relatively negligible component within frequency bands, and thus an attempt was made to examine the tweaking with regard to both distance and transmitting antenna height differences. Second-order correction formulas were derived as follows:

$$UFC = 16.5 + 15 \log (f/100) - 0.12 \cdot d - a(h_t) - b(h_r) + \Delta_{UFC}(h_t,d)$$

where $a(h_t) = (13.82 + 6.55 \cdot \log d) \cdot (\log h_t - 2.3)$,

$b(h_r) = (1.1 \cdot \log f - 0.7) \cdot (9.1 - 3)$,

and, for low VHF,

$$\Delta_{UFC}(h_t,d) = (0.06355 \cdot h_t - 13.0137) + (-0.004412 \cdot h_t + 2.02248) \cdot d + (0.000070778 \cdot h_t - 0.04041) \cdot d^2$$

high VHF,

$$\Delta_{UFC}(h_t,d) = (0.070023 \cdot h_t - 22.379) + (-0.003809 \cdot h_t + 2.1419) \cdot d + (0.00003894 \cdot h_t - 0.02408) \cdot d^2$$

UHF,

$$\Delta_{UFC}(h_t,d) = (-0.04394 \cdot h_t + 29.4424) + (0.0045676 \cdot h_t - 1.459) \cdot d + (-0.00008873 \cdot h_t + 0.02397) \cdot d^2$$

$a(h_t)$ represents a correction for a change in the transmitting antenna height from 200 meters, $b(h_r)$ represents a correction for a change in the receiving antenna height from 3 meters, and $\Delta_{UFC}(h_t,d)$ represents the second-order correction derived from the "tweaking." The expressions for $a(h_t)$ and

$b(h_r)$ are derived from Hata's equations.

The second scenario attempted to determine whether the unadjusted Longley "urban factor," i.e., plain UF, benefits from being tweaked with nearly a thousand additional data sets obtained for television broadcasting (hereinafter, "Tweaked" UF). In other words, this second scenario attempted to determine, in part, whether the antenna height adjustments made in the first scenario, which are based upon Hata's equations, improve the overall accuracy. Like the first scenario, one part of this second scenario examined tweaking the Longley "urban factor" with regard to distance only and without regard to frequency or transmitting antenna height differences, and, like the first scenario, the results were not promising and were not studied further. And again, like the first scenario, another part of this second scenario examined possible tweaking by assuming that frequency is a relatively negligible component within frequency bands, and thus an attempt was again made to examine the tweaking with regard to both distance and transmitting antenna height differences. Second-order correction formulas for this scenario were derived as follows:

$$UF = 16.5 + 15 \log (f/100) - 0.12 \cdot d + \Delta_{UF}(h_t,d)$$

where, for low VHF,

$$\Delta_{UF}(h_t,d) = (0.0014 \cdot h_t - 2.7558) + (-0.0017 \cdot h_t + 0.8938) \cdot d + (0.00004 \cdot h_t - 0.243) \cdot d^2$$

high VHF,

$$\Delta_{UF}(h_t,d) = (-0.01214 \cdot h_t + 6.3707) + (-0.002552 \cdot h_t + 1.4649) \cdot d + (0.000027482 \cdot h_t - 0.01687) \cdot d^2$$

UHF,

$$\Delta_{UF}(h_t,d) = (-0.03159 \cdot h_t + 6.6142) + (0.001585 \cdot h_t - 0.54503) \cdot d + (-0.000054225 \cdot h_t + 0.013246) \cdot d^2$$

The correction functions in both scenarios represented a relatively poor fit to the data. Nevertheless, Network Affiliates attempted to apply the "tweaked" Longley "urban factor" corrections to the data to determine the effects on the model's accuracy. Not surprisingly, given the poor fit, these second-order corrections to Longley's "urban factor" formula, when subtracted from the path loss predicted by the ILLR model, did not improve the accuracy of the ILLR model.[66]

Various comparisons were made between the "Untweaked" UFC, "Tweaked" UFC, "Tweaked" UF, and the ILLR model itself. As a general observation, the "Tweaked" UF method appeared to perform slightly worse than the "Tweaked" UFC method. This was expected because the "Tweaked" UF method may not fully account for transmitting antenna height differences and does not directly account for receiving antenna height differences at all. Both "tweaked" methods had particular difficulties in the high VHF band, which is not surprising based on their best least squares fit curves as shown in Figures 2 and 5 in the IITRI Further Engineering Statement.

Neither of these "tweaked" second-order corrections appeared to perform as well as the "Untweaked" UFC. Given the poor fit of the best least squares fit curves to the data, this was not unexpected.

From what could be gleaned from these various comparisons, it appears that the various Longley "urban factor"-derived methods performed in an order decreasing with their facility in handling antenna height differences: First, "Untweaked" UFC; second, "Tweaked" UFC, which attempts to account for substantial differences in transmitting antenna heights with only three

---

[66] These corrections were not applied when they would have resulted in a gain being applied to the predicted path loss.

disparate examples; and third, "Tweaked" UF, which has the same flaw as the "Tweaked" UFC method and which also fails to account for receiving antenna height differences.

Ultimately, what these extensive analyses demonstrate is that it will take a significant amount of data measurement, compilation, and analysis in order to materially improve upon the existing ILLR model. Creating simple—or even complex—"fudge factors" to account for clutter does not appear to work with the limited data currently available. The development of further refinements to the ILLR model will therefore require extensive empirical studies.

Because Network Affiliates do not believe that an LULC database with sufficient terrain and clutter height resolution for ILLR/SHVIA purposes will become available for the foreseeable future, any attempt to assign clutter loss values by clutter description category, as proposed in the *Notice*, is misbegotten. Instead, efforts should focus on obtaining as many data sets as possible, in as many different geographical locations as possible, with a good sampling of television frequencies and transmitting antenna heights. Then a generalized clutter factor, like Longley's "urban factor," may be derived, after suitable reduction of the empirical data, just as Okumura did for land mobile applications. This methodology would appear to promise the most fruitful benefits. This conclusion is based upon the fact that application to the ILLR model of Longley's "urban factor," suitably adjusted for antenna height differences ("Untweaked" UFC), appeared to be the second most accurate predictor of Grade B service, apart from the ILLR model itself.[67] However, too much of the empirical data underlying Longley's "urban factor" was derived from land mobile application studies. If a substantial amount of data specific to television broadcasting were collected, better

[67] This conclusion ignores the performance of the FCC-Rubinstein proposal, which, as shown above, is scientifically unsound.

results might be obtained.

In the interim, it is clear that the accuracy of the existing ILLR model cannot be immediately improved on the basis of existing data and studies. Indeed, it should be expressly acknowledged that the ILLR model is a highly accurate and reliable predictor of Grade B service for purposes of SHVIA. Ultimately improving upon this high degree of accuracy will prove no mean feat. Because the ILLR model is a semi-empirical model whose empirical foundations, based on data collected from mobile runs, necessarily incorporate whatever vegetation and buildings existed at the time of the mobile runs, the ILLR model, from a technical perspective, already takes into account "building structures[] and other land cover variations,"[68] and SHVIA's requirement to do so is already fulfilled. The Commission, therefore, should not attempt to "refine" the ILLR model when such "refinements" do not materially improve the model's accuracy.

Indeed, such "refinements" would prove a grave disservice to science and the integrity of the Commission's technical competence. The Commission should be wary of following in the footsteps of Galileo who, bowed by external forces, recanted his correct views that the heavens are impermanent and the earth revolves around the sun. It is simply premature to modify the ILLR model to attempt to take further account of clutter based on the engineering and technical studies that have been performed to date.

---

[68] 47 U.S.C. § 339(c)(3).

V. The Commission And Other Interested Parties Cannot Properly Evaluate Proposed Future Refinements To The ILLR Model In Impossibly Short Timeframes

DirecTV has proposed that the Commission adopt expedited informal rulemaking procedures for continued refinement of the ILLR model. In particular, DirecTV proposed that a rulemaking proceeding be triggered by the filing of a petition, that the Commission immediately issue a public notice, that comments be due within ten days thereafter, that reply comments be due within five additional days, and that the entire proceeding be resolved with a Commission order within 45 days from the date the petition was filed.[69] This expedited timeline must be rejected.

As this very proceeding shows, it is simply impossible to analyze the scientific and engineering merits of proposed modifications to the ILLR model in such a short window. Indeed, certain interested parties may not even have sufficient time to retain engineering counsel with the special expertise required in this matter in such a short timeframe. The Commission, as the guardian of the scientific veracity of the ILLR model in particular, and of the technical coherence of the television broadcasting service more generally, cannot afford to jeopardize the integrity of the engineering underlying its communications policies. Network Affiliates operate under the assumptions that the Commission values the considered input of interested parties, and that, through the informal rulemaking process, especially with regards to technical issues, interested parties and the Commission work together toward the common goal of formulating the best technical communications policies that the relevant scientific and engineering data support. While all parties would like to see the Commission act on various rulemaking proposals in a timely fashion, good

---

[69] *See* Comments of DirecTV at 8-9.

science cannot be rushed to confirm or reject any particular proposed modification to the ILLR model. A much more realistic timeframe is a 60 day comment period followed by a 30 day reply comment period, and even those time periods may prove insufficient, depending on the complexity of the proposed modifications.

VI. SHVIA Mandates Certain Requirements Concerning Site Measurements

A. The Commission Must Designate An Independent And Neutral Entity To Select Individual Testers

New 47 U.S.C. § 339(c)(4)(B) requires the Commission to designate by rule an independent and neutral entity that will select the party to conduct an individual household test when a satellite carrier and network affiliate cannot agree on a tester. DirecTV has proposed that the Commission appoint a working group comprised of representatives from the National Association of Broadcasters and the Satellite Broadcasting and Communications Association whose responsibility it would be to identify one or more qualified consulting engineers in each DMA.[70] Network Affiliates do not object to this proposal in principle but do question whether the consulting engineers so selected will have the capability to satisfy in a timely fashion the potentially large number of requests for testing services.

Section 339(c)(4)(A) requires that a test be conducted within 30 days after the date a subscriber submits a request to a satellite carrier for the test. By the NAB and SBCA, with the Commission's blessing, essentially providing a list of approved consulting engineers, the natural inclination will be for either the satellite carrier or the network affiliate to refuse to agree upon any

[70] *See* Comments of DirecTV at 9-10.

individual to conduct a test who is not on the "approved" list. The result will be that the "approved" consulting engineers will be inundated with testing requests—a result that may simply be unavoidable. Under no circumstances, however, could the Commission adopt a rule that provided that a network affiliate would be deemed to have consented either to a determination of "unserved" status or to a "waiver" if any tester is unable to conduct an adequate test at the subscriber's household within 30 days of the date of the testing request. Congress, of course, did not provide for such a result in the statute, nor did it authorize the Commission to modify the statute. Indeed, Section 339(c)(4)(A) expressly provides that an individual household may only be deemed unserved "[i]f the written findings and conclusions of a test . . . demonstrate that the subscriber does not receive a signal that meets or exceeds the signal intensity standard" in 17 U.S.C. § 119(d)(10)(A).[71]

In its comments, RadioSoft has offered its services as a central clearinghouse to fulfill the Commission's obligation to designate an independent and neutral entity to select testers.[72] However, RadioSoft's experience is in developing software that predicts coverage and interference for modeling existing and new systems of all types of radio transmission.[73] RadioSoft has no apparent expertise in vetting the qualifications of individuals to conduct site measurements in accordance with 47 C.F.R. § 73.686(d) throughout the country or in managing the immense task of selecting such individuals in each DMA.

The AFCCE asserts that it does not recommend itself as the independent and neutral entity

---

[71] 47 U.S.C. § 339(c)(4)(A).

[72] *See* Comments of RadioSoft at 2.

[73] *See* <http://www.radiosoft.com> (visited Mar. 3, 2000).

to actually select the qualified tester but that its members can fulfill the role of independent testers.[74] Network Affiliates respect the technical competence of AFCCE members to perform individual site testing but agree with AFCCE that their limited number (approximately 90 full members who are Registered Professional Engineers) and normal workloads will generally preclude their ability to perform site measurements in all but a limited number of circumstances. In addition, the statutory requirement that the Commission designate an independent and neutral entity remains.

Rather than actually designate a named independent and neutral entity to select an individual tester when the parties cannot agree, EchoStar proposed that the Commission merely endorse a set of qualification criteria, drawn up by the satellite industry, and permit testing to be undertaken by anyone who satisfies these criteria.[75] The Commission should reject EchoStar's proposal. Section 339(c)(4)(B) expressly requires, when the satellite carrier and network station(s) cannot agree on the person to conduct the test, that "the person shall be designated by an independent and neutral entity designated by the Commission by rule." EchoStar's proposal, therefore, fails to comport with the clearly expressed statutory requirement. The Commission is without authority to fail to designate a neutral and independent entity to select testers and instead merely prescribe qualification criteria. Although EchoStar fails to provide its suggested qualification criteria, it is highly likely that such criteria will be framed so as to be satisfied by those technicians who install EchoStar's DISH Network satellite dishes. Obviously such individuals would have a pecuniary interest in the outcome of any test, besides the payment for the costs of the test itself. This is why Congress required the

---

[74] *See* Comments of AFCCE at 4.

[75] *See* Comments of EchoStar at 7-8.

Commission to designate "an independent and neutral entity" to select the tester.

B. Satellite Carriers Can Never Unilaterally Determine That A Particular Household Is Eligible For Distant Network Service

EchoStar has attempted to preempt and subvert the entire waiver and testing processes set forth in SHVIA by arguing that it should be allowed to conduct tests, on its own initiative, to pre-qualify individual households for distant network service.[76] EchoStar's proposal must be rejected outright. EchoStar is free to conduct all the tests it wants, at its own expense, but no such test results can preclude a local network affiliate from rejecting a waiver request submitted by a potential subscriber to distant network service nor insulate EchoStar from copyright liability if its testing is flawed. In other words, EchoStar can test to its heart's content to determine that certain locations are *not* eligible for distant network service, but it can never unilaterally determine that a particular location *is* legally eligible for distant network service.

SHVIA envisions that the initial determination of eligibility for distant network service will be predicted by the ILLR model. If the ILLR model predicts that a particular household is "served" by one or more television stations affiliated with the relevant network, then the customer may submit to those stations, through his or her satellite carrier, a written request for a waiver.[77] If a network affiliate denies a waiver request, then the customer may request that an actual site test be conducted.[78] The network affiliate and satellite carrier must agree on the individual to conduct the

---

[76] *See* Comments of EchoStar at 8-9.

[77] *See* Conference Report at 12; 47 U.S.C. § 339(c)(2).

[78] *See* 47 U.S.C. § 339(c)(4)(A).

test, and, if they cannot agree on such an individual, an independent and neutral entity designated by the Commission can select the individual to conduct the test.[79]

EchoStar's proposal would turn this statutorily-mandated process on its head by denying network affiliates the right to consider waiver requests on their own terms and by denying network affiliates the right to have a say on who may be qualified as an appropriate tester. EchoStar's proposal should be recognized as the end-run that it is. Congress quite plainly fashioned a "loser pays" rule for the cost of conducting site measurements. Congress did not contemplate that EchoStar could buy the results that its wants merely by paying for the cost of testing up front. EchoStar's proposal must be rejected outright.

C. Unnecessary Testing Should Be Avoided, But Signal Intensity Is Highly Dependent On Location

DirecTV proposed that the Commission allow, by rule, that the parties be able to agree that a test result be extended to neighboring households so as to "avoid any undue burden on any party."[80] Network Affiliates understand this proposal to be a mechanism to avoid incurring the costs of testing in circumstances in which the results of such tests are likely to be highly predictable in advance. So long as a party be entirely free to reject such a proposal from the other party, with no implied consequence as to which party would be required to bear the cost of the testing that is not foregone, Network Affiliates do not, in principle, object to the proposal. However, Network Affiliates do not believe the Commission has the authority to modify or override the statutory right,

---

[79] *See* U.S.C. § 339(c)(4)(B).

[80] 47 U.S.C. § 339(c)(4)(C).

granted in 47 U.S.C. § 339(c)(4)(A), of a potential satellite subscriber at a particular site to request a test when a waiver request is denied or the right of a network affiliate to test at a particular site. In addition, because signal intensity is highly dependent upon the location at which the testing is conducted, including clutter in the immediate vicinity, it is only in locations relatively near the television station's transmitter site or at locations wholly lacking in clutter above rooftop level that generalizations to a neighborhood are likely to be valid.

Conclusion

Network Affiliates respectfully urge the Commission to refuse to create methods whereby served households are deemed unserved, to refuse to permit any predictive model to underpredict true service, and to refuse to vitiate the waiver and independent testing processes. Based on the record evidence developed in this proceeding, the existing ILLR model is a highly accurate and reliable predictor of Grade B service whose accuracy cannot be immediately improved in a material fashion. The integrity of the Commission's technical competence should not be jeopardized by ill-founded attempts to modify the ILLR model in ways that have no sound support in the scientific community. The Commission should not act at this time to modify the ILLR model, either as proposed in the *Notice* or as suggested by the satellite carriers.

Respectfully submitted,

By Wade Hargrove /pe
Wade H. Hargrove

By David Kushner /pe
David Kushner
BROOKS, PIERCE, McLENDON,
HUMPHREY & LEONARD, L.L.P.
First Union Capitol Center
Suite 1600 (27601)
Post Office Box 1800
Raleigh, North Carolina 27602
Telephone: (919) 839-0300
Counsel for the ABC Television Affiliates Association and for the Fox Television Affiliates Association

By Kurt Wimmer /pe
Kurt A. Wimmer
COVINGTON & BURLING
1201 Pennsylvania Avenue, N.W. (20004)
Post Office Box 7566
Washington, D.C. 20044-7566
Telephone: (202) 662-6000
Counsel for the CBS Television Network Affiliates Association and for the NBC Television Affiliates Association

March 14, 2000